

REMARKS

Applicants appreciate the Examiner's thorough review of the present application, and respectfully request reconsideration in light of the preceding amendments and the following remarks.

Claims 5-9 and 14-20 are pending in the instant application. Claims 5 and 14 have been amended to better define the claimed invention. Claims 19-20 have been added to provide Applicants with the scope of protection to which they are believed entitled. No new matter has been introduced through the foregoing amendments.

**Rejection of claims 5, 6, 9, 14, 15 and 18 under 35 USC § 102(e)
as being anticipated by Coffman (6,451,627)**

The present invention is directed to a method of making a low-pin-count chip package. According to the present invention, the method comprises the steps of: (a) laminating a metal layer on a sheet carrier; (b) half-etching the metal layer so as to form cavities at predetermined positions thereof; (c) forming a photoresist layer on the half-etched metal layer (page 5, lines 1-2; Fig. 5); (d) half-removing the photoresist layer such that only the photoresist within the cavities is left; (e) forming a metal coating on the surface of the half-etched metal layer which is not covered by the photoresist (page 5, lines 12-14; Fig. 7); (f) stripping the remaining photoresist within the cavities; (g) etching the half-etched metal layer using the metal coating as a mask so as to form a plurality of connection pads (and a die pad (claim 14)) having a substantially concave profile (page 5, lines 23-24; Fig. 9); (h) attaching a semiconductor chip onto the sheet carrier (claim 5); or attaching a semiconductor chip onto the die pad (claim 14); (i) electrically coupling the semiconductor chip to the connection pads; (j) forming a package body over the semiconductor chip and the connection pads; (k) removing the sheet carrier after the package body is formed (page 6, lines 10-15; Fig. 2 and Fig. 10); and (l) forming a protective metal flash on the lower surface of the connection pads exposed from the package body.

Applicants respectfully contend that the applied reference fails to teach or suggest the claimed steps of (1) forming a photoresist layer on an half-etched metal layer having cavities at

predetermined positions thereof, and half-removing the photoresist layer such that only photoresist within the cavities is left; and (2) removing the sheet carrier after a package body is formed.

Regarding point (1), while Coffman does teach a step of forming a photoresist layer 32 (see Fig. 3 of the reference), the photoresist layer 32 is formed over the surface of the metal sheet 20 which does not have any cavity and then patterned to form openings in the photoresist layer 32 (see Col. 2, line 59-65), unlike the presently claimed invention.

Regarding point (2), Coffman does not teach or suggest a step of removing the sheet carrier after a package body is formed since the sheet carrier 126 in Coffman is only partially etched (see Fig. 17) but not removed as presently claimed.

Therefore, Applicants respectfully submit that Coffman fails to teach or disclose each and every limitation of amended claims 5 and 14, and request that the *35 U.S.C. 102(e)* rejections be withdrawn.

Since it has been shown that amended independent claims 5 and 14 overcome the art rejections, Applicants respectfully request withdrawal of the rejections of claims 6, 9 and 15, 18 under *35 U.S.C. 102(e)* as they depend from independent claims 5 or 14.

Rejection of claims 7, 8, 16 and 17 under 35 USC § 103(a)
as being unpatentable over Coffman (6,451,627) in view of Bernier et al. (6,251,707) and
Bunyan (U.S. Pub. 2002/0012762).

This rejection is believed overcome in view of the above amendments and arguments advanced with respect to independent claims 5 and 14.

New claims 19-20 are considered patentable not only for the reason advanced with respect to amended claim 5 and 4 but also on their own merits, as will be apparent to the Examiner upon reviewing the new claims.

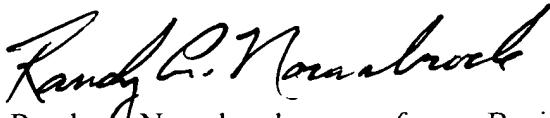
Each of the Examiner's rejections has been traversed/overcome. Accordingly, Applicants respectfully submit that all claims are now in condition for allowance. Early and favorable indication of allowance is courteously solicited.

The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: July 10, 2003